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NATIONAL EUTROPHICATION SURVEY

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REPORT

ON

LAKE MURRAY

FAIRFIELD, LEXINGTON, NEWBERRY,

SALUDA, AND RICHLAND COUNTIES

SOUTH CAROLINA

EPA REGION IV

WORKING PAPER No. 436

WITH THE COOPERATION OF THE

SOUTH CAROLINA DEPARTMENT OF HEALTH AND

ENVIRONMENTAL CONTROL

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16. ABSTRACT

Annual total phosphorus and total nitrogen loadings to the lake were estimated and subdivided according to either point or non-point source origin. An assessment of the lake's trophic condition and limiting nutrient is also provided. All data collected by the U.S.E.P.A. National Eutrophication Survey during the one year study of the lake and its tributaries are included in the report.

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FOREWORD

The National Eutrophication Survey was initiated in 1972 in response to an Administration commitment to investigate the nationwide threat of accelerated eutrophication to freshwater lakes and reservoirs.

OBJECTIVES

The Survey was designed to develop, in conjunction with state environmental agencies, information on nutrient sources, concentrations, and impact on selected freshwater lakes as a basis for formulating comprehensive and coordinated national, regional, and state management practices relating to point-source discharge reduction and non-point source pollution abatement in lake watersheds.

ANALYTIC APPROACH

The mathematical and statistical procedures selected for the Survey's eutrophication analysis are based on related concepts that:

a. A generalized representation or model relating sources, concentrations, and impacts can be constructed.

b. By applying measurements of relevant parameters associated with lake degradation, the generalized model can be transformed into an operational representation of a lake, its drainage basin, and related nutrients.

c. With such a transformation, an assessment of the potential for eutrophication control can be made.

LAKE ANALYSIS

In this report, the first stage of evaluation of lake and watershed data collected from the study lake and its drainage basin is documented. The report is formatted to provide state environmental agencies with specific information for basin planning [§303(e)], water quality criteria/standards review [§303(c)], clean lakes [§314(a,b)], and water quality monitoring [§106 and §305(b)] activities mandated by the Federal Water Pollution Control Act Amendments of 1972.

Beyond the single lake analysis, broader based correlations between nutrient concentrations (and loading) and trophic condition are being made to advance the rationale and data base for refinement of nutrient water quality criteria for the Nation's freshwater lakes. Likewise, multivariate evaluations for the relationships between land use, nutrient export, and trophic condition, by lake class or use, are being developed to assist in the formulation of planning guidelines and policies by EPA and to augment plans implementation by the states.

ACKNOWLEDGMENT

The staff of the National Eutrophication Survey (Office of Research & Development, U. S. Environmental Protection Agency) expresses sincere appreciation to the South Carolina Department of Health and Environmental Control for professional involvement, to the South Carolina National Guard for conducting the tributary sampling phase of the Survey, and to those South Carolina wastewater treatment plant operators who voluntarily provided effluent samples and flow data.

The staff of the South Carolina Bureau of Wastewater and Stream Quality Control provided invaluable lake documentation and counsel during the Survey, reviewed the preliminary reports, and provided critiques most useful in the preparation of this Working Paper series.

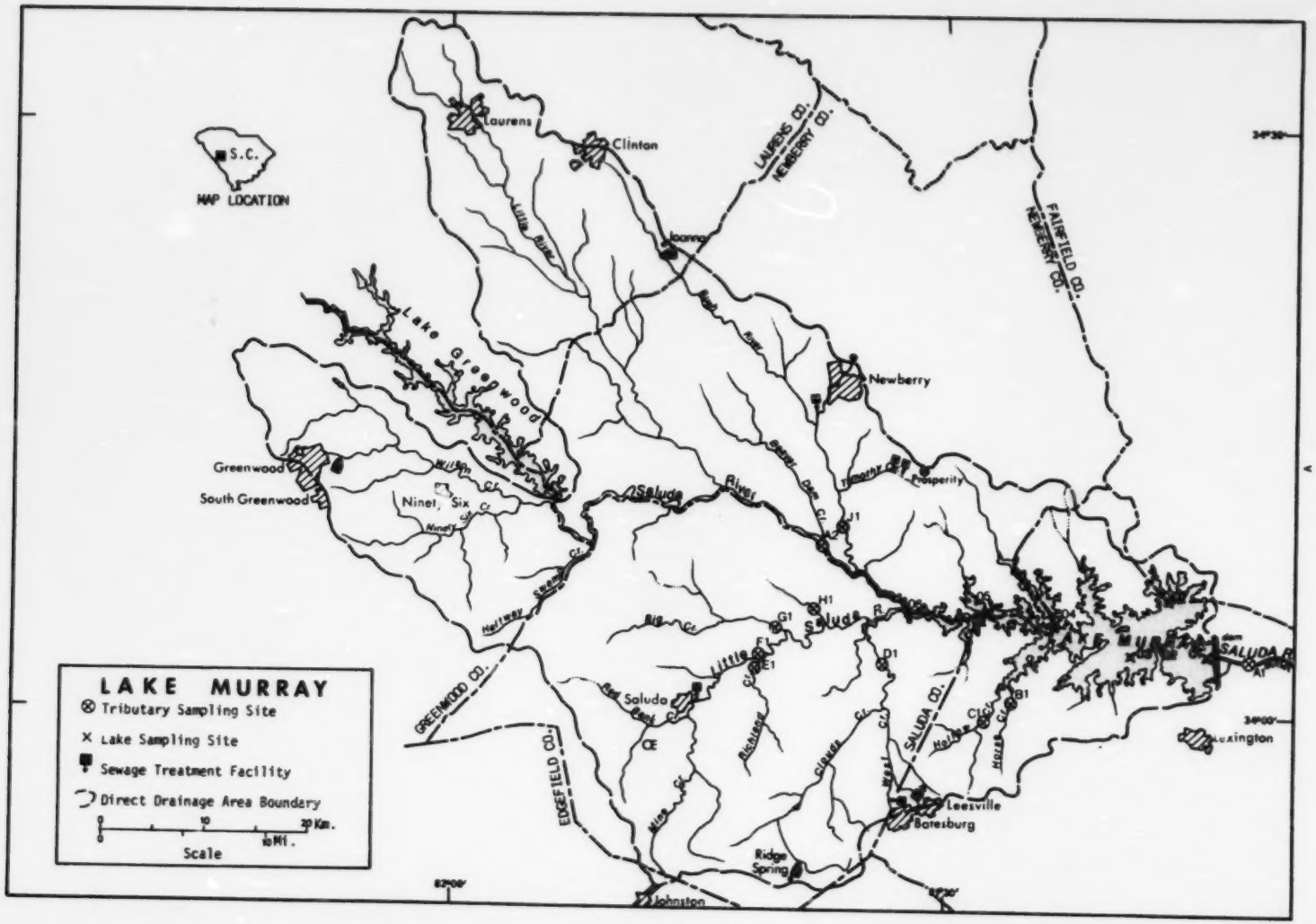
Major General Robert L. McCrady, the Adjutant General of South Carolina, and Project Officer Lt. Colonel John P. DuPre (Retired), who directed the volunteer efforts of the South Carolina National Guardsmen, are also gratefully acknowledged for their assistance to the Survey.

NATIONAL EUTROPHICATION SURVEY

STUDY LAKES

STATE OF SOUTH CAROLINA

NAME	COUNTY
Clark Hill	Abbeville, McCormick, SC; Columbia, Elbert, Lincoln, McDuffie, Wilks, GA
Fishing Creek	Chester, Lancaster
Greenwood	Greenwood, Laurens, Newberry
Hartwell	Anderson, Oconee, Pickens, SC; Franklin, Hart, Stephens, GA
Keowee	Oconee, Pickens
Marion	Berkeley, Calhoun, Claredon, Orangeburg, Sumter
Moultrie	Berkeley
Murray	Lexington, Newberry, Richland, Saluda
Robinson	Chesterfield, Darlington
Saluda	Greenville, Pickens
Secession	Abbeville, Anderson
Wateree	Fairfield, Kershaw, Lancaster
William C. Bowen	Spartanburg
Wylie	York, SC; Gaston, Mecklenburg, NC


LAKE MURRAY
Tributary Sampling Site
Lake Sampling Site
Sewage Treatment Facility
Direct Drainage Area Boundary
Scale
MAP LOCATION
S.C.
Laurens
Clinton
Joanna
Newberry
Prosperity
Greenwood
South Greenwood
Ninety Six
Saluda
Leesville
Batesburg
Ridge Spring
Johnston
Lexington
Lake Greenwood
Saluda River
Little Saluda R.
LAURENS CO.
NEWBERRY CO.
FAIRFIELD CO.
GREENWOOD CO.
EDGEFIELD CO.
SALUDA CO.
Little River
Big Cr.
Mine Cr.
Richland Cr.
Clouds Cr.
West Cr.
Horse Cr.
Hollow Cr.
Beaver Dam Cr.
Timothy Cr.
Wilson Cr.
Ninety Six Cr.
Halfway Swamp Cr.
Red Bank Cr.
J1
H1
G1
F1
E1
D1
B1
A1
CE
34°30'
34°00'
82°00'
81°30'

LAKE MURRAY

STORET NO. 4507

I. CONCLUSIONS

A. Trophic Condition:

Collectively, the Survey data indicate Lake Murray is eutrophic. However, Lake Murray is a large reservoir and when the data are examined on a station-by-station basis, mesotrophy is indicated at stations 1, 2, and 7; meso-eutrophy is indicated at station 3; and eutrophy is indicated at stations 4, 5, and 6 (see map, page v). Following is a tabulation of the means of six relevant parameters for each of the sampling stations:

Station	OP (mg/l)	TP (mg/l)	Inorg. N (mg/l)	TN (mg/l)	Secchi disc (m)	Chlor. a (ug/l)
1	0.007	0.020	0.251	0.505	2.4	5.3
2	0.007	0.019	0.257	0.540	2.4	5.5
7	0.007	0.017	0.244	0.530	2.4	6.0
3	0.010	0.023	0.264	0.529	2.1	6.2
4	0.013	0.040	0.326	0.716	1.7	6.8
5	0.015	0.048	0.319	0.654	1.4	7.9
6	0.014	0.057	0.302	0.692	0.9	7.4

Lake Murray ranked sixth in overall trophic quality when the 13 South Carolina lakes sampled in 1973 were compared using a combination of six water quality parameters*. Four of the lakes had less median total phosphorus, six had less and one had the same median dissolved phosphorus, four had less and one had the same median inorganic nitrogen, six had less mean chlorophyll a, and two had a greater mean Secchi disc transparency. Depression

* See Appendix A.

or depletion of dissolved oxygen with depth occurred at all sampling stations in July and September.

Blue-green algae were prominent in the July and September phytoplankton samples, but surface concentrations of algae were not observed by Survey limnologists.

B. Rate-Limiting Nutrient:

The algal assay results indicate Lake Murray was phosphorus limited at the time the sample was collected (09/22/73). The lake data indicate phosphorus limitation at all sampling times.

C. Nutrient Controllability:

1. Point sources--The estimated phosphorus contribution of point sources accounted for 60.0% of the total phosphorus load reaching Lake Murray during the sampling year. The largest part of the point-source load (26.3%) came from the City of Greenville and 12 smaller municipal wastewater treatment facilities which discharge in the drainage of upstream Lake Greenwood (a portion of the phosphorus contributed by these plants reaches Lake Murray via the Lake Greenwood outlet and the Saluda River).

The second largest phosphorus contributor was the City of Greenwood in the Lake Murray drainage (12.3% of the total). The four Newberry plants collectively contributed 8.6% of the total phosphorus load, and the remaining 12.7% was input to Lake Murray by ten smaller wastewater treatment facilities.

No accounting was made of those industrial wastes which are not treated in municipal treatment facilities, and the estimated phosphorus load contributed by the City of Greenwood was not adjusted to account for the significant industrial load treated in the municipal plant (Foley, 1976). Therefore, it is very likely that more than 60.0% of the total phosphorus load to Lake Murray was input by point sources.

The phosphorus loading measured during the sampling year, 1.45 g/m^2, is about twice that proposed by Vollenweider (Vollenweider and Dillon, 1974) as a eutrophic loading (see page 20). It is calculated that 85% phosphorus removal at the point sources identified in this report would result in a phosphorus loading to Lake Murray of 0.71 $g/m^2/yr$. While the reduced phosphorus loading would be slightly more than the eutrophic loading of 0.70 $g/m^2/year$, it is likely that such a reduction would result in significant improvement in the Saluda River embayment where water quality currently is poorest (stations 4, 5, and 6) as well as reduce the phosphorus load discharged through the outlet to downstream Lake Marion*.

2. Non-point sources--The non-point phosphorus load to Lake Murray amounted to 40.0% of the total load. For the reasons noted above, this probably is an overestimate of the non-point source contribution because of industrial contributions and under-

* Working Paper No. 434.

estimation of contributions of some of the municipal sources. Note that the phosphorus export rates of the Little Saluda River, Big Creek, and the Bush River were much higher than the rates of the other tributaries of Lake Murray (see page 19). These rates indicate probable point-source impact.

II. LAKE AND DRAINAGE BASIN CHARACTERISTICS†

A. Lake Morphometry††:

1. Surface area: 205.58 kilometers^2.
2. Mean depth: 12.7 meters.
3. Maximum depth: 57.8 meters.
4. Volume: 2,608 x 10^6 m^3.
5. Mean hydraulic retention time: 348 days.

B. Tributary and Outlet:
(See Appendix C for flow data)

1. Tributaries -

Name	Drainage area (km^2)*	Mean flow (m^3/sec)*
Saluda River	4,325.3	61.82
Horse Creek	20.4	0.29
Hollow Creek	44.8	0.63
Clouds Creek	238.8	3.39
Richland Creek	49.7	0.71
Little Saluda River	284.1	4.03
Big Creek	127.4	1.81
Indian Creek	24.0	0.34
Bush River	303.0	4.28
Minor tributaries & immediate drainage -	644.9	9.36
Totals	6,062.4	86.66

2. Outlet -

Saluda River	6,268.0**	86.66

C. Precipitation***:

1. Year of sampling: 173.9 centimeters.
2. Mean annual: 120.0 centimeters.

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† Table of metric conversions--Appendix B.
†† At maximum controllable pool level; Martin and Hanson, 1966.
* For limits of accuracy, see Working Paper No. 175, "...Survey Methods, 1973-1976".
** Includes area of lake.
*** See Working Paper No. 175.

III. LAKE WATER QUALITY SUMMARY

Lake Murray was sampled three times in 1973 by means of a pontoon-equipped Huey helicopter. Each time, samples for physical and chemical parameters were collected from a number of depths at seven stations on the lake (see map, page v). During each visit, a single depth-integrated (4.6 m to surface) sample was composited from the stations for phytoplankton identification and enumeration; and during the last visit, two 18.9-liter depth-integrated algal assay samples were composited (stations 1, 2, and 3, were combined; and stations 4, 5, and 6 were combined). Also each time, a depth-integrated sample was collected from each of the stations for chlorophyll a analysis. The maximum depths sampled were 54.6 meters at station 1, 41.5 meters at station 2, 39.6 meters at station 3, 32.3 meters at station 4, 17.1 meters at station 5, 9.1 meters at station 6, and 26.2 meters at station 7.

The results obtained are presented in full in Appendix D and are summarized in the following table.

A. SUMMARY OF PHYSICAL AND CHEMICAL CHARACTERISTICS FOR LAKE MURRAY
STORET CODE 4507

PARAMETER	1ST SAMPLING (3/26/73) 7 SITES RANGE	MEAN	MEDIAN	2ND SAMPLING (7/ 9/73) 7 SITES RANGE	MEAN	MEDIAN	3RD SAMPLING (9/22/73) 7 SITES RANGE	MEAN	MEDIAN
TEMP (C)	9.3 - 15.3	12.4	12.6	14.4 - 31.1	23.4	24.0	17.6 - 28.0	24.4	25.7
DISS OXY (MG/L)	7.6 - 10.4	9.4	9.6	0.3 - 8.6	3.7	3.1	0.0 - 9.0	2.9	1.5
CNDCTVY (MCROMO)	58. - 78.	66.	65.	55. - 75.	64.	63.	48. - 102.	58.	56.
PH (STAND UNITS)	7.2 - 7.9	7.5	7.5	6.2 - 8.4	6.9	6.4	6.2 - 8.3	6.5	6.5
TOT ALK (MG/L)	10. - 19.	14.	15.	14. - 25.	19.	19.	17. - 30.	23.	22.
TOT P (MG/L)	0.018 - 0.093	0.037	0.028	0.007 - 0.092	0.023	0.015	0.010 - 0.073	0.027	0.020
ORTHO P (MG/L)	0.003 - 0.023	0.009	0.007	0.003 - 0.026	0.007	0.005	0.004 - 0.050	0.013	0.010
NO2+NO3 (MG/L)	0.180 - 0.390	0.257	0.250	0.040 - 0.440	0.207	0.180	0.020 - 0.190	0.043	0.030
AMMONIA (MG/L)	0.010 - 0.080	0.038	0.030	0.050 - 0.400	0.101	0.070	0.030 - 0.660	0.173	0.110
KJEL N (MG/L)	0.200 - 0.800	0.315	0.300	0.200 - 1.000	0.427	0.400	0.200 - 1.200	0.517	0.400
INORG N (MG/L)	0.210 - 0.430	0.295	0.280	0.090 - 0.520	0.308	0.340	0.050 - 0.690	0.216	0.150
TOTAL N (MG/L)	0.380 - 1.140	0.571	0.525	0.250 - 1.270	0.633	0.590	0.230 - 1.230	0.560	0.490
CHLRPYL A (UG/L)	4.8 - 8.4	5.7	5.0	4.4 - 9.7	7.1	7.4	4.8 - 10.1	6.5	5.4
SECCHI (METERS)	0.5 - 1.8	1.3	1.4	1.2 - 2.7	2.2	2.4	1.0 - 3.0	2.3	2.6

B. Biological Characteristics:

1. Phytoplankton -

Sampling Date	Dominant Genera	Algal Units per ml
03/26/73	1. *Melosira sp.*	669
	2. Flagellates	669
	3. *Cryptomonas sp.*	278
	4. *Fragilaria sp.*	138
	5. *Stephanodiscus sp.*	106
	Other genera	351
	Total	2,211
07/09/73	1. *Nitzschia sp.*	2,429
	2. *Anabaena sp.*	1,404
	3. *Cyclotella sp.*	1,350
	4. *Lyngbya sp.*	1,026
	5. *Synedra sp.*	756
	6. Other genera	4,263
	Total	11,228
09/22/73	1. *Dactylococcopsis sp.*	1,321
	2. *Raphidiopsis sp.*	1,148
	3. *Lyngbya sp.*	976
	4. *Anabaena sp.*	345
	5. *Chroococcus sp.*	86
	Other genera	1,234
	Total	5,110

2. Chlorophyll *a* -

Sampling Date	Station Number	Chlorophyll *a* (μg/l)
03/26/73	1	4.8
	2	4.9
	3	5.9
	4	4.9
	5	6.2
	6	8.4
	7	5.0

Sampling Date	Station Number	Chlorophyll a (µg/l)
07/09/73	1	6.0
	2	6.7
	3	7.4
	4	9.7
	5	7.5
	6	4.4
	7	8.1
09/22/73	1	5.0
	2	4.8
	3	5.4
	4	5.9
	5	10.1
	6	9.3
	7	5.0

C. Limiting Nutrient Study:

1. Stations 1, 2, 3 -

a. Autoclaved, filtered, and nutrient spiked -

Spike (mg/l)	Ortho P Conc. (mg/l)	Inorganic N Conc. (mg/l)	Maximum yield (mg/l-dry wt.)
Control	0.009	0.246	0.3
0.010 P	0.019	0.246	4.6
0.020 P	0.029	0.246	7.7
0.050 P	0.059	0.246	7.6
0.025 P + 0.5 N	0.034	0.746	11.9
0.050 P + 1.0 N	0.059	1.246	24.6
1.0 N	0.009	1.246	0.2

b. Filtered and nutrient spiked -

Spike (mg/l)	Ortho P Conc. (mg/l)	Inorganic N Conc. (mg/l)	Maximum yield (mg/l-dry wt.)
Control	0.007	0.232	0.3
0.010 P	0.017	0.232	3.8
0.020 P	0.027	0.232	5.7
0.050 P	0.057	0.232	6.4
0.025 P + 0.5 N	0.032	0.732	11.0
0.050 P + 1.0 N	0.057	1.232	24.6
1.0 N	0.007	1.232	0.3

2. Stations 4, 5, 6 -

a. Autoclaved, filtered, and nutrient spiked -

Spike (mg/l)	Ortho P Conc. (mg/l)	Inorganic N Conc. (mg/l)	Maximum yield (mg/l-dry wt.)
Control	0.019	0.384	6.6
0.010 P	0.029	0.384	9.5
0.020 P	0.039	0.384	11.5
0.050 P	0.069	0.384	13.0
0.025 P + 0.5 N	0.044	0.884	20.6
0.050 P + 1.0 N	0.069	1.384	34.5
1.0 N	0.019	1.384	7.4

b. Filtered and nutrient spiked -

Spike (mg/l)	Ortho P Conc. (mg/l)	Inorganic N Conc. (mg/l)	Maximum yield (mg/l-dry wt.)
Control	0.016	0.375	7.2
0.010 P	0.026	0.375	9.7
0.020 P	0.036	0.375	7.9
0.050 P	0.066	0.375	10.3
0.025 P + 0.5 N	0.041	0.875	19.6
0.050 P + 1.0 N	0.066	1.375	32.0
1.0 N	0.016	1.375	7.0

3. Discussion -

The control yields of the assay alga, Selenastrum capricornutum, indicate that the potential primary productivity at stations 1, 2, and 3 was moderate but was high at stations 4, 5, and 6 at the time the assay samples were collected (09/22/73). In both assays, increasing yields with increasing increments of orthophosphorus indicate that Lake Murray was limited by phosphorus at that time. Note that in all cases, the addition of nitrogen alone did not produce a yield sig-

nificantly greater than that of the control.

The differences in the control yields at stations 1, 2, and 3 (east end of lake) and at stations 4, 5, and 6 (west end of the lake) indicate the differences in availability of nutrients for primary production. Note that orthophosphorus concentrations at stations 1, 2, and 3 were about one-half those at stations 4, 5, and 6.

The lake data also indicate Lake Murray was phosphorus limited. At all sampling times, the mean inorganic nitrogen to orthophosphorus ratios were 17 to 1 or greater.

IV. NUTRIENT LOADINGS
(See Appendix E for data)

For the determination of nutrient loadings, the South Carolina National Guard collected monthly near-surface grab samples from each of the tributary sites indicated on the map (page v), except for the high runoff month of January when two samples were collected. Sampling was begun in February, 1973, and was completed in February, 1974.

Through an interagency agreement, stream flow estimates for the year of sampling and a "normalized" or average year were provided by the South Carolina District Office of the U.S. Geological Survey for the tributary sites nearest the lake.

Except for the Little Saluda River, nutrient loads for sampled tributaries were determined by using a modification of a U.S. Geological Survey computer program for calculating stream loadings*. Stream loads shown are those measured minus point-source loads, if any.

Nutrient loads for the Little Saluda River were calculated using the mean annual flow and adjusted mean phosphorus and nitrogen concentrations at station F-1. Abnormally high levels of phosphorus and nitrogen were recorded for the October, November, and December samples which resulted in excessive loading values. The loads reported herein are based on values excluding the apparent outliers.

Nutrient loads for unsampled "minor tributaries and immediate drainage" ("ZZ" of U.S.G.S.) were estimated using the nutrient loads

* See Working Paper No. 175.

at station B-1, in kg/km^2/year, and multiplying by the ZZ area in km^2.

The indirect municipal point-source loads leaving upstream Lake Greenwood* were calculated by multiplying the nutrient loads leaving Lake Greenwood (90,815 kg P and 1,448,195 kg N) by the fractions of the totals of the nutrient loads contributed by the 13 listed point sources (0.862 for P and 0.399 for N).

The operators of the Batesburg, Newberry (Ocona, Boundary Street, Gum Springs, and Pool No. 1), Prosperity No. 1 and No. 2, and Saluda wastewater treatment plants provided monthly effluent samples and corresponding flow data. The operators of the Clinton, Greenwood, Joanna Mills Village, Laurens, Leesville, Ninety Six, and Ridge Springs wastewater treatment plants did not participate in the Survey, and nutrient loads were estimated at 1.134 kg P and 3.401 kg N/capita/year.

* Working Paper No. 431.

A. Waste Sources:

1. Known municipal† -

Name	Pop. Served	Treatment	Mean Flow (m^3/d)	Receiving Water
Batesburg	4,385	tr. filter	950.0	West Creek
Clinton	7,900	2 stab. ponds	2,422.4	Bush River
Greenwood	35,000	act. sludge	11,355.0	Wilson Creek
Joanna Mills Village	1,830	act. sludge	556.4	Bush River
Laurens	9,600	tr. filter	3,633.6*	Little River
Leesville	800	stab. pond	473.1	Clouds Creek
Newberry				
Ocona (#2)	400	act. sludge	1,922.8	Gum Spring Creek/ Bush River
Boundary St.	10,000	tr. filter	4,349.0	Scott Creek/ Bush River
Gum Springs	160	stab. pond	11.4	Gum Spring Creek
Pool #1	1,500	stab. pond	567.8	Bush Creek/ Bush River
Ninety Six	2,400	stab. pond	908.4	Br. of Ninety Six Creek
Prosperity				
#1 - S.W.	100	aer. pond	109.8	Timothy Creek
#2 - N.W.	300	aer. pond	151.4	Timothy Creek
Ridge Spring #2	500	stab. pond	189.2*	Clouds Creek
Saluda	2,500	tr. filter + pond	1,347.5	Little Saluda River

In addition to the sources listed above, at least eleven privately-owned facilities treating domestic wastes (combined flow of 880 m^3/day) discharge in the Lake Murray drainage (Foley, 1976); the nutrient impact of these small sources is not known but probably is minimal.

2. Lake Greenwood municipal -

The following sources discharge in the Lake Greenwood drainage, and a portion of the nutrient loads reaches Lake Murray via the Saluda River.

† Survey questionnaires; Anonymous, 1971; Foley, op. cit.
* Estimated at 0.3785 m^3/capita/day.

Name	Pop. Served	Treatment	Mean Flow (m^3/d)	Receiving Water
Belton	1,200	stab. pond	836.5	Broad Mouth Cr.
Easley				
Georges Creek	2,800	stab. pond	1,059.8	Georges Creek/ Saluda River
Glenwood	2,000	stab. pond	757.0	Br. of Brushy Creek
Brushy Creek	3,000	stab. pond	1,135.5	Brushy Creek/ Saluda River
Greenville	115,000	tr. filter	98,569.0	Reedy River
Honea Path				
#1	4,000	stab. pond	927.3	Broad Mouth Creek
#2	2,000	stab. pond	757.0	Clatworthy Creek/ Saluda River
Piedmont	1,405	act. sludge	757.0	Grove Creek/ Saluda River
Ware Shoals				
#1	1,600	stab. pond	832.7	Turkey Creek
#2	1,200	act. sludge	17,513.2	Saluda River
West Pelzer	1,000	act. sludge	295.2	Saluda River
Williamston				
#1	1,300	stab. pond	283.9	Saluda River
#2	2,500	act. sludge	1,419.4	Big Creek

3. Known industrial -

At least eight industrial treatment facilities with a combined design flow about 3,320 m^3/day discharge in the Lake Murray drainage (Foley, op. cit.), but the nutrient significance of these sources is not known.

B. Annual Total Phosphorus Loading - Average Year:

1. Inputs -

Source	kg P/ yr	% of total
a. Tributaries (non-point load) -		
Saluda River	38,330	12.9
Horse Creek	350	0.1
Hollow Creek	1,295	0.4
Clouds Creek	8,305	2.8
Richland Creek	1,295	0.4
Little Saluda River	25,415	8.5
Big Creek	6,415	2.2
Indian Creek	865	0.3
Bush River	20,470	6.9
b. Minor tributaries & immediate drainage (non-point load) -	10,965	3.7
c. Known municipal STP's -		
Batesburg	3,545	1.2
Clinton	8,960	3.0
Greenwood	36,690	12.3
Indirect input via Lake Greenwood (13 plants)	78,285	26.3
Joanna Mills Village	2,075	0.7
Laurens	10,885	3.7
Leesville	905	0.3
Newberry		
Ocona	8,635	2.9
Boundary St.	16,250	5.5
Gum Springs	<5	<0.1
Pool #1	780	0.3
Ninety Six	2,720	0.9
Prosperity		
#1 - S.W.	655	0.2
#2 - N.W.	1,450	0.5
Ridge Spring	565	0.2
Saluda	5,975	2.0

Source	kg P/ yr	% of total
d. Septic tanks* -	1,425	0.5
e. Known industrial -	?	-
f. Direct precipitation** -	3,600	1.2
Total	297,105	100.0

2. Outputs -

   Lake outlet - Saluda River 83,275

3. Net annual P accumulation - 213,830 kg.

* Estimate based on 5,000 lakeshore dwellings and three public access areas with facilities (Campbell and Dean, 1976); see Working Paper No. 175.
** See Working Paper No. 175.

C. Annual Total Nitrogen Loading - Average Year:

1. Inputs -

Source	kg N/ yr	% of total
a. Tributaries (non-point load) -		
Saluda River	889,000	32.1
Horse Creek	6,835	0.2
Hollow Creek	13,045	0.5
Clouds Creek	94,120	3.4
Richland Creek	21,325	0.8
Little Saluda River	184,570	6.7
Big Creek	67,360	2.4
Indian Creek	10,035	0.4
Bush River	140,365	5.0
b. Minor tributaries & immediate drainage (non-point load) -	216,040	7.8
c. Known municipal STP's -		
Batesburg	12,895	0.5
Clinton	26,870	1.0
Greenwood	119,035	4.3
Indirect input via Lake Greenwood (13 plants)	577,830	20.8
Joanna Mills Village	6,225	0.2
Laurens	32,650	1.2
Leesville	2,720	0.1
Newberry		
Ocona	9,350	0.3
Boundary St.	40,250	1.5
Gum Springs	15	<0.1
Pool #1	1,985	<0.1
Ninety Six	8,160	0.3
Prosperity		
#1 - S.W.	1,445	<0.1
#2 - N.W.	1,535	<0.1
Ridge Spring	1,700	<0.1
Saluda	13,055	0.5

Source	kg N/ yr	% of total
d. Septic tanks* -	53,360	1.9
e. Known industrial -	?	-
f. Direct precipitation** -	221,945	8.0
Total	2,773,720	100.0

2. Outputs -

   Lake outlet - Saluda River 1,927,285

3. Net annual N accumulation - 846,435 kg.

D. Mean Annual Non-point Nutrient Export by Subdrainage Area:

Tributary	kg P/km²/yr	kg N/km²/yr
Saluda River	9	206
Horse Creek	17	335
Hollow Creek	29	291
Clouds Creek	35	394
Richland Creek	26	429
Little Saluda River	89	650
Big Creek	50	529
Indian Creek	36	418
Bush River	68	463

* Estimate based on 5,000 lakeshore dwellings and three public access areas with facilities (Campbell and Dean, 1976); see Working Paper No. 175.
** See Working Paper No. 175.

E. Yearly Loads:

In the following table, the existing phosphorus loadings are compared to those proposed by Vollenweider (Vollenweider and Dillon, 1974). Essentially, his "dangerous" loading is one at which the receiving water would become eutrophic or remain eutrophic; his "permissible" loading is that which would result in the receiving water remaining oligotrophic or becoming oligotrophic if morphometry permitted. A mesotrophic loading would be considered one between "dangerous" and "permissible".

Note that Vollenweider's model may not be applicable to water bodies with short hydraulic retention times.

	Total Phosphorus		Total Nitrogen	
	Total	Accumulated	Total	Accumulated
grams/m^2/yr	1.45	1.04	13.5	4.1

Vollenweider phosphorus loadings ($g/m^2/yr$) based on mean depth and mean hydraulic retention time of Lake Murray:	
"Dangerous" (eutrophic loading)	0.70
"Permissible" (oligotrophic loading)	0.35

V. LITERATURE REVIEWED

Anonymous, 1973. Survey questionnaires (Leesville, Newberry, Prosperity, Batesburg waste treatment facilities). SC Dept. of Health & Env. Contr., Columbia.

Atkinson, Reid, 1975. Personal communication (population served and treatment type for City of Greenwood). SC Dept. of Health & Env. Contr., Columbia.

Burris, Bobby, 1973. Survey questionnaire (Belton waste treatment facilities). Belton.

Campbell, William M., and John Mark Dean, 1976. Environmental inventory of Lake Murray, South Carolina; volume one. Env. Res. Ctr., Inc., Columbia.

Cox, Ray, 1973. Survey questionnaire (Honea Path waste treatment facilities). Honea Path.

Crum, W. Bowman, 1973. Survey questionnaire (Greenville and Williamston waste treatment facilities). SC Dept. of Health & Env. Contr., Columbia.

Davis, W. A., 1973. Survey questionnaire (West Pelzer waste treatment facilities). West Pelzer.

Foley, John R., 1976. Personal communication (permitted point sources in Lake Murray drainage). SC Dept. of Health & Env. Contr., Columbia.

Martin, R. O. R., and Ronald L. Hanson, 1966. Reservoirs in the United States. Water Supply Paper No. 1838, U.S.G.S., Wash., DC.

Surber, Frank, 1973. Survey questionnaire (Ware Shoals waste treatment facilities). Ware Shoals.

Vollenweider, R. A., and P. J. Dillon, 1974. The application of the phosphorus loading concept to eutrophication research. Natl. Res. Council of Canada Publ. No. 13690, Canada Centre for Inland Waters, Burlington, Ontario.

Wright, Ann, 1974. Personal communication (loading rate of Little Saluda River). SC Dept. of Health & Env. Contr., Columbia.

VI. APPENDICES

APPENDIX A

LAKE RANKINGS

LAKE DATA TO BE USED IN RANKINGS

LAKE CODE	LAKE NAME	MEDIAN TOTAL P	MEDIAN INORG N	500-MEAN SEC	MEAN CHLORA	15-MIN DO	MEDIAN DISS ORTHO P
4503	FISHING CREEK RESERVOIR	0.143	0.535	483.000	2.811	10.200	0.051
4504	LAKE GREENWOOD	0.061	0.470	463.917	8.150	15.000	0.011
4505	LAKE HARTWELL	0.013	0.130	422.000	6.157	15.000	0.004
4506	LAKE MARION	0.055	0.280	470.176	8.728	14.900	0.010
4507	LAKE MURRAY	0.024	0.260	424.905	6.4[illegible]8	15.000	0.007
4508	LAKE ROBINSON	0.014	0.260	458.778	8.611	14.000	0.005
4510	LAKE WATEREE	0.094	0.450	475.667	8.408	14.100	0.034
4511	LAKE WYLIE	0.045	0.380	462.222	5.422	14.800	0.013
4512	LAKE MOULTRIE	0.026	0.200	455.36[illegible]	8.800	11.200	0.006
4513	LAKE KEOWEE	0.008	0.170	371.750	2.833	15.000	0.003
4514	LAKE SECESSION	0.057	0.355	462.778	10.722	15.000	0.006
4515	SALUDA LAKE	0.046	0.230	476.833	1.517	10.800	0.006
4516	LAKE WILLIAM C. BOWEN	0.022	0.360	459.889	3.911	15.000	0.007

PERCENT OF LAKES WITH HIGHER VALUES (NUMBER OF LAKES WITH HIGHER VALUES)

LAKE CODE	LAKE NAME	MEDIAN TOTAL P	MEDIAN INORG N	500-MEAN SEC	MEAN CHLORA	15-MIN DO	MEDIAN DISS ORTHO P	INDEX NO
4503	FISHING CREEK RESERVOIR	0 (0)	0 (0)	0 (0)	92 (11)	100 (12)	0 (0)	192
4504	LAKE GREENWOOD	17 (2)	8 (1)	33 (4)	42 (5)	21 (0)	25 (3)	146
4505	LAKE HARTWELL	92 (11)	100 (12)	92 (11)	58 (7)	21 (0)	92 (11)	455
4506	LAKE MARION	33 (4)	50 (6)	25 (3)	17 (2)	50 (6)	33 (4)	208
4507	LAKE MURRAY	67 (8)	62 (7)	83 (10)	50 (6)	21 (0)	46 (5)	329
4508	LAKE ROBINSON	83 (10)	62 (7)	67 (8)	25 (3)	75 (9)	83 (10)	395
4510	LAKE WATEREE	8 (1)	17 (2)	17 (2)	33 (4)	67 (8)	8 (1)	150
4511	LAKE WYLIE	50 (6)	25 (3)	50 (6)	67 (8)	58 (7)	17 (2)	267
4512	LAKE MOULTRIE	58 (7)	83 (10)	75 (9)	8 (1)	83 (10)	71 (8)	378
4513	LAKE KEOWEE	100 (12)	92 (11)	100 (12)	83 (10)	21 (0)	100 (12)	496
4514	LAKE SECESSION	25 (3)	42 (5)	42 (5)	0 (0)	21 (0)	58 (7)	188
4515	SALUDA LAKE	42 (5)	75 (9)	8 (1)	100 (12)	92 (11)	71 (8)	388
4516	LAKE WILLIAM C. BOWEN	75 (9)	33 (4)	58 (7)	75 (9)	21 (0)	46 (5)	308

LAKES RANKED BY INDEX NOS.

RANK	LAKE CODE	LAKE NAME	INDEX NO
1	4513	LAKE KEOWEE	496
2	4505	LAKE HARTWELL	455
3	4508	LAKE ROBINSON	395
4	4515	SALUDA LAKE	388
5	4512	LAKE MOULTRIE	378
6	4507	LAKE MURRAY	329
7	4516	LAKE WILLIAM C. BOWEN	308
8	4511	LAKE WYLIE	267
9	4506	LAKE MARION	208
10	4503	FISHING CREEK RESERVOIR	192
11	4514	LAKE SECESSION	188
12	4510	LAKE WATEREE	150
13	4504	LAKE GREENWOOD	146

APPENDIX B

CONVERSION FACTORS

CONVERSION FACTORS

Hectares x 2.471 = acres

Kilometers x 0.6214 = miles

Meters x 3.281 = feet

Cubic meters x 8.107×10^{-4} = acre/feet

Square kilometers x 0.3861 = square miles

Cubic meters/sec x 35.315 = cubic feet/sec

Centimeters x 0.3937 = inches

Kilograms x 2.205 = pounds

Kilograms/square kilometer x 5.711 = lbs/square mile

APPENDIX C

TRIBUTARY FLOW DATA

TRIBUTARY FLOW INFORMATION FOR SOUTH CAROLINA 04/27/76

LAKE CODE 4507 LAKE MURRAY

TOTAL DRAINAGE AREA OF LAKE(SQ KM) 6267.8

NORMALIZED FLOWS(CMS)

TRIBUTARY	SUB-DRAINAGE AREA(SQ KM)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
4507A1	6267.8	94.25	98.95	106.14	101.99	62.47	82.37	86.79	92.87	79.88	79.05	75.73	80.43	86.66
4507A2	4325.3	75.04	91.75	111.85	90.61	59.75	48.70	46.72	43.61	38.79	41.34	41.91	53.00	61.82
4507B1	20.4	0.453	0.651	0.765	0.481	0.198	0.113	0.142	0.113	0.085	0.113	0.142	0.255	0.291
4507C1	44.8	0.99	1.44	1.67	1.08	0.42	0.25	0.31	0.25	0.17	0.23	0.31	0.54	0.63
4507D1	238.8	5.30	7.76	8.98	5.72	2.29	1.39	1.59	1.30	0.93	1.19	1.59	2.89	3.39
4507E1	49.7	1.10	1.61	1.87	1.19	0.48	0.28	0.34	0.28	0.20	0.25	0.34	0.59	0.71
4507F1	284.1	6.31	9.23	10.70	6.80	2.72	1.64	1.90	1.56	1.10	1.42	1.90	3.45	4.03
4507G1	127.4	2.83	4.13	4.79	3.06	1.22	0.74	0.85	0.71	0.51	0.62	0.85	1.56	1.81
4507H1	24.0	0.538	0.765	0.906	0.566	0.227	0.142	0.170	0.142	0.085	0.113	0.170	0.283	0.340
4507J1	303.0	6.71	9.80	11.36	7.22	2.89	1.76	2.01	1.64	1.19	1.50	2.01	3.68	4.28
4507ZZ	644.9	14.67	21.44	24.81	15.80	6.31	3.82	4.39	3.60	2.61	3.28	4.39	8.01	9.36

SUMMARY

TOTAL DRAINAGE AREA OF LAKE = 6267.8
SUM OF SUB-DRAINAGE AREAS = 6062.5

TOTAL FLOW IN = 1044.11
TOTAL FLOW OUT = 1040.91

MEAN MONTHLY FLOWS AND DAILY FLOWS(CMS)

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
4507A1	2	73	186.042	18	21.238				
	3	73	135.921	14	237.862				
	4	73	214.642	15	25.768				
	5	73	110.436	17	26.901				
	6	73	221.155	19	34.547				
	7	73	135.071	19	173.299				
	8	73	110.719	17	67.111				
	9	73	154.893	19	127.426				
	10	73	44.741	23	14.158				
	11	73	33.697	20	15.574				
	12	73	50.404	17	90.614				
	1	74	172.733	8	150.079	22	138.753		
	2	74	178.396	8	269.010				
4507A2	2	73	131.673	25	19.822				
	3	73	141.584	11	42.475				
	4	73	195.386	14	132.806				
	5	73	91.747	20	83.818				
	6	73	133.372	19	50.970				
	7	73	62.863	15	28.317				
	8	73	43.608	12	36.812				
	9	73	92.313	16	249.188				
	10	73	39.077	14	15.574				
	11	73	43.891	18	12.743				
	12	73	53.802	9	19.822				
	1	74	141.584	13	99.169	31	134.505		
	2	74	113.267	10	152.911				

TRIBUTARY FLOW INFORMATION FOR SOUTH CAROLINA 04/27/76

LAKE CODE 4507 LAKE MURRAY

MEAN MONTHLY FLOWS AND DAILY FLOWS(CMS)

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
4507B1	2	73	0.850	18	0.340				
	3	73	0.765	14	0.453				
	4	73	0.850	15	0.198				
	5	73	0.198	17	0.113				
	6	73	0.934	19	0.283				
	7	73	0.340	19	0.113				
	8	73	0.198	17	0.057				
	9	73	0.821	19	0.057				
	10	73	0.085	23	0.085				
	11	73	0.057	20	0.850				
	12	73	0.113	17	0.142				
	1	74	0.396	8	0.170	22	0.538		
	2	74	0.566	8	1.472				
4507C1	2	73	1.869	18	0.736				
	3	73	1.671	14	0.991				
	4	73	1.416	15	0.453				
	5	73	0.425	17	0.227				
	6	73	2.067	19	0.623				
	7	73	0.736	19	0.255				
	8	73	0.425	17	0.085				
	9	73	1.784	19	0.085				
	10	73	0.198	23	0.113				
	11	73	0.142	20	0.113				
	12	73	0.255	17	0.283				
	1	74	0.878	8	0.396	22	1.189		
	2	74	1.274	8	3.256				
4507D1	2	73	9.911	18	3.908				
	3	73	8.920	14	5.210				
	4	73	7.589	15	2.350				
	5	73	2.237	17	1.189				
	6	73	10.959	19	13.026				
	7	73	3.968	19	1.303				
	8	73	2.209	17	0.510				
	9	73	9.486	19	0.651				
	10	73	1.048	23	0.906				
	11	73	0.793	20	0.850				
	12	73	1.303	17	1.557				
	1	74	4.701	8	2.095	22	6.230		
	2	74	6.796	8	17.273				
4507E1	2	73	2.067	25	0.425				
	3	73	1.869	11	1.642				
	4	73	1.586	14	0.481				
	5	73	0.481	17	0.255				
	6	73	2.294	16	7.079				
	7	73	0.821	15	0.283				
	8	73	0.453	12	0.113				
	9	73	1.982	16	0.170				
	10	73	0.227	14	0.198				
	11	73	0.170	20	0.198				
	12	73	0.283	9	0.340				
	1	74	0.991	13	0.425	31	1.359		
	2	74	1.416	10	1.019				

TRIBUTARY FLOW INFORMATION FOR SOUTH CAROLINA 04/27/76

LAKE CODE 4507 LAKE MURRAY

MEAN MONTHLY FLOWS AND DAILY FLOWS(CMS)

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
4507F1	2	73	11.808	25	2.492				
	3	73	10.591	11	9.316				
	4	73	9.061	14	2.775				
	5	73	2.662	20	1.416				
	6	73	13.026	16	45.307				
	7	73	4.672	15	1.557				
	8	73	2.633	12	0.623				
	9	73	11.270	16	0.906				
	10	73	1.246	14	1.076				
	11	73	0.934	18	0.991				
	12	73	1.557	9	1.869				
	1	74	5.578	13	2.492	31	7.759		
	2	74	8.070	10	5.947				
4507G1	2	73	5.295	25	1.133				
	3	73	4.757	11	4.191				
	4	73	4.049	14	1.246				
	5	73	1.189	20	0.651				
	6	73	5.862	16	20.530				
	7	73	2.095	15	0.708				
	8	73	1.189	12	0.283				
	9	73	5.069	16	0.425				
	10	73	0.566	14	0.481				
	11	73	0.425	18	0.453				
	12	73	0.708	9	0.850				
	1	74	2.520	13	1.104	31	3.483		
	2	74	3.625	10	2.633				
4507H1	2	73	0.991	25	0.198				
	3	73	0.906	11	0.793				
	4	73	0.765	14	0.227				
	5	73	0.227	20	0.113				
	6	73	1.104	16	3.398				
	7	73	0.396	15	0.142				
	8	73	0.227	12	0.057				
	9	73	0.963	16	0.085				
	10	73	0.113	14	0.085				
	11	73	0.085	18	0.085				
	12	73	0.142	9	0.170				
	1	74	0.481	13	0.198	31	0.651		
	2	74	0.680	10	0.510				
4507J1	2	73	12.661	25	2.662				
	3	73	11.327	11	9.911				
	4	73	9.628	14	2.973				
	5	73	2.832	20	1.529				
	6	73	13.932	16	48.139				
	7	73	4.955	15	1.642				
	8	73	2.832	12	0.651				
	9	73	12.035	16	0.991				
	10	73	1.331	14	1.161				
	11	73	0.991	18	1.133				
	[illegible]	73	1.671	9	1.982				
	1	74	5.975	13	2.662	31	8.297		
	2	74	8.608	10	5.286				

TRIBUTARY FLOW INFORMATION FOR SOUTH CAROLINA 04/27/76

LAKE CODE 4507 LAKE MURRAY

MEAN MONTHLY FLOWS AND DAILY FLOWS(CMS)

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
4507ZZ	2	73	27.467	25	5.777				
	3	73	24.636	11	21.662				
	4	73	20.954	14	6.513				
	5	73	6.230	20	3.313				
	6	73	30.299	19	33.980				
	7	73	10.760	15	3.625				
	8	73	6.088	12	1.444				
	9	73	26.193	16	2.180				
	10	73	2.888	14	2.520				
	11	73	2.180	18	2.407				
	12	73	3.625	9	4.248				
	1	74	13.026	13	5.663	31	18.123		
	2	74	18.831	10	13.734				

APPENDIX D

PHYSICAL and CHEMICAL DATA

STORET RETRIEVAL DATE 76/04/27

34<

450701
34 02 59.0 081 13 00.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0183 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
73/03/26	11 00	0000	13.3		72	70	7.30	16	0.070	0.700	0.210	0.007
	11 00	0006	13.3	10.0		65	7.40	16	0.030	0.300	0.180	0.005
	11 00	0013	12.3	10.0		65	7.40	17	0.030	0.300	0.190	0.004
	11 00	0020	12.1	10.0		65	7.40	17	0.030	0.300	0.190	0.004
	11 00	0035	12.0	10.0		70	7.50	19	0.030	0.300	0.190	0.004
	11 00	0050	11.3	9.6		70	7.50	17	0.030	0.300	0.220	0.004
	11 00	0075	10.6	9.9		70	7.50	17	0.020	0.300	0.240	0.004
	11 00	0100	10.1	9.8		70	7.40	16	0.020	0.200	0.250	0.005
	11 00	0120	9.9	9.8		65	7.30	16	0.020	0.200	0.260	0.006
	11 00	0140	9.9	9.6		65	7.30	15	0.020	0.200	0.260	0.006
	11 00	0160	9.6	9.3		65	7.30	15	0.020	0.200	0.270	0.007
	11 00	0179	9.3	9.3		65	7.20	15	0.030	0.300	0.270	0.011
73/07/09	10 50	0000	30.2		108	63	8.30	20	0.080	0.300	0.060	0.003
	10 50	0006	30.1	7.9		60	7.70	19	0.070	0.200	0.050	0.004
	10 50	0015	29.8	8.0		60	7.40	20	0.070	0.200K	0.060	0.004
	10 50	0030	24.2	2.6		63	6.40	22	0.080	0.200K	0.130	0.003
	10 50	0060	19.3	3.2		63	6.40	19	0.060	0.200K	0.280	0.005
	10 50	0090	15.9	4.5				19	0.050	0.200K	0.360	0.005
	10 50	0120	15.2	3.9		63	6.40	18	0.050	0.200K	0.390	0.005
	10 50	0150	14.8	3.6		63	6.40	19	0.070	0.200K	0.420	0.007
	10 50	0178	14.4	2.7		68	6.40	20	0.070	0.200K	0.430	0.006
73/09/22	10 30	0000	27.0	6.8	102	57	6.50	20	0.060	1.000	0.030	0.013
	10 30	0025	26.8	6.2		55	6.70	19	0.040	0.400	0.020	0.009
	10 30	0040	26.1	1.2		51	6.40	18	0.050	0.400	0.030	0.010
	10 30	0060	22.5	0.1		56	6.30	22	0.110	0.400	0.030	0.010
	10 30	0110	19.5	0.1		57	6.30	20	0.050	0.300	0.190	0.008
	10 30	0140	18.6	0.1		72	6.20	22	0.110	0.400	0.080	0.008
	10 30	0175	17.6	0.1		102	6.40	28	0.350	0.700	0.020	0.026

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

450701
34 02 59.0 081 13 00.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0183 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L
73/03/26	11 00	0000	0.027	4.8
	11 00	0006	0.023	
	11 00	0013	0.021	
	11 00	0020	0.018	
	11 00	0035	0.019	
	11 00	0050	0.018	
	11 00	0075	0.024	
	11 00	0100	0.025	
	11 00	0120	0.025	
	11 00	0140	0.026	
	11 00	0160	0.026	
	11 00	0179	0.032	
73/07/09	10 50	0000	0.012	6.0
	10 50	0006	0.014	
	10 50	0015	0.012	
	10 50	0030	0.011	
	10 50	0060	0.012	
	10 50	0090	0.012	
	10 50	0120	0.012	
	10 50	0150	0.019	
	10 50	0178	0.031	
73/09/22	10 30	0000	0.019	5.0
	10 30	0025	0.015	
	10 30	0040	0.019	
	10 30	0060	0.020	
	10 30	0110	0.011	
	10 30	0140	0.017	
	10 30	0175	0.044	

STORET RETRIEVAL DATE 76/04/27

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450702
34 04 00.0 081 16 40.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0142 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
73/03/26	12 10	0000	13.0		72	68	7.20	16	0.040	0.500	0.190	0.005
	12 10	0006	12.6	10.0		68	7.40	16	0.030	0.400	0.190	0.007
	12 10	0013	12.6	10.0		72	7.40	17	0.030	0.300	0.190	0.004
	12 10	0020	12.6	10.0		68	7.50	17	0.030	0.300	0.190	0.004
	12 10	0035	12.1	9.8		68	7.50	17	0.030	0.300	0.200	0.003
	12 10	0050	11.0	9.6		68	7.50	16	0.020	0.300	0.230	0.004
	12 10	0070	10.6	9.8		65	7.50	16	0.030	0.300	0.250	0.004
	12 10	0090	10.1	9.6		65	7.50	15	0.010	0.300	0.260	0.005
	12 10	0110	9.8	9.6		65	7.30	14	0.020	0.400	0.280	0.006
	12 10	0128	9.6	9.2		68	7.30	14	0.030	0.300	0.290	0.006
73/07/09	10 00	0000	29.7		108	63	8.00	17	0.080	0.400	0.060	0.004
	10 00	0006	29.7	7.9		60	7.60	15	0.080	0.300	0.060	0.004
	10 00	0015	29.0	7.1		60	7.00	15	0.110	0.200	0.120	0.005
	10 00	0030	23.8	1.1		62	6.30	17	0.070	0.200K	0.190	0.010
	10 00	0055	19.4	2.6		65	6.40	22	0.060	0.200K	0.350	0.004
	10 00	0080	16.6	3.6		65	6.40	20	0.060	0.200K	0.360	0.004
	10 00	0100	15.5	3.5		65	6.40	19	0.060	0.200K	0.400	0.005
	10 00	0120	15.0	3.1		65	6.40	18	0.060	0.200K	0.410	0.006
	10 00	0136	14.9	3.4		68	6.40	21	0.090	0.200	0.430	0.005
73/09/22	11 25	0000	27.0	7.6	102	55	6.50	22	0.050	0.800	0.030	0.006
	11 25	0025	26.7	6.6		55	6.70	21	0.040	0.400	0.020	0.004
	11 25	0040	26.6	5.8		55	6.30	18	0.060	0.400	0.030	0.010
	11 25	0055	23.9	0.0		61	6.50	24	0.130	0.400	0.020	0.007
	11 25	0090	20.2	0.1		56	6.30	23	0.130	0.500	0.020	0.010
	11 25	0132	18.5	0.2		62	6.30	23	0.280	0.700	0.020	0.031

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

450702
34 04 00.0 081 16 40.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0142 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L
73/03/26	12 10	0000	0.021	4.9
	12 10	0006	0.025	
	12 10	0013	0.018	
	12 10	0020	0.023	
	12 10	0035	0.019	
	12 10	0050	0.021	
	12 10	0070	0.024	
	12 10	0090	0.025	
	12 10	0110	0.029	
	12 10	0128	0.033	
73/07/09	10 00	0000	0.013	6.7
	10 00	0006	0.015	
	10 00	0015	0.015	
	10 00	0030	0.013	
	10 00	0055	0.012	
	10 00	0080	0.012	
	10 00	0100	0.015	
	10 00	0120	0.014	
	10 00	0136	0.023	
73/09/22	11 25	0000	0.010	4.8
	11 25	0025	0.011	
	11 25	0040	0.011	
	11 25	0055	0.013	
	11 25	0090	0.018	
	11 25	0132	0.037	

STORET RETRIEVAL DATE 76/04/27

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450703
34 03 05.0 081 18 45.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0118 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
73/03/28	08 20	0000	13.0		54	65	7.70	17	0.070	0.300	0.230	0.009
	08 20	0004	13.1	10.4		65	7.70	16	0.040	0.200K	0.220	0.007
	08 20	0015	13.0	9.8		65	7.60	16	0.030	0.200K	0.230	0.007
	08 20	0050	11.8	9.0		65	7.60	16	0.030	0.200K	0.270	0.007
	08 20	0075	11.0	9.0		65	7.60	17	0.030	0.200K	0.280	0.006
	08 20	0114	10.5	8.8		65	7.50	16	0.030	0.300	0.280	0.006
73/07/09	12 50	0000	31.0		96	69	7.80	19	0.080	0.400	0.060	0.009
	12 50	0006	30.0	7.9		60	7.70	15	0.050	0.400	0.040	0.004
	12 50	0015	29.4	6.4		60	7.20	17	0.100	0.400	0.130	0.006
	12 50	0030	23.7	0.8		63	6.30	17	0.070	0.200	0.250	0.004
	12 50	0055	19.7	2.8		64	6.40	18	0.060	0.300	0.280	0.004
	12 50	0075	16.8	3.7		65	6.40	19	0.060	0.200K	0.340	0.005
	12 50	0095	15.5	2.7		63	6.30	18	0.060	0.200	0.390	0.006
	12 50	0116	14.8	1.7		69	6.30	22	0.080	0.200K	0.440	0.008
73/09/22	13 30	0000	27.0	7.1	102	54	6.60	19	0.080	0.800	0.030	0.007
	13 30	0025	26.7	6.2		53	6.50	22	0.030	0.300	0.020	0.006
	13 30	0040	26.5	5.6		56	6.60	22	0.040	0.300	0.020	0.005
	13 30	0050	24.9	0.1		63	6.40	24	0.140	0.500	0.020	0.008
	13 30	0075	21.3	0.0		60	6.40	23	0.190	0.500	0.020	0.014
	13 30	0100	19.6	0.0		58	6.40	23	0.220	0.500	0.040	0.026
	13 30	0130	18.4	0.0		70	6.50	26	0.490	0.900	0.020	0.050

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

450703
34 03 05.0 081 18 45.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0118 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L
73/03/28	08 20	0000	0.028	5.9
	08 20	0004	0.031	
	08 20	0015	0.031	
	08 20	0050	0.028	
	08 20	0075	0.028	
	08 20	0114	0.051	
73/07/09	12 50	0000	0.015	7.4
	12 50	0006	0.014	
	12 50	0015	0.007	
	12 50	0030	0.016	
	12 50	0055	0.011	
	12 50	0075	0.014	
	12 50	0095	0.018	
	12 50	0116	0.024	
73/09/22	13 30	0000	0.012	5.4
	13 30	0025	0.012	
	13 30	0040	0.013	
	13 30	0050	0.027	
	13 30	0075	0.022	
	13 30	0100	0.029	
	13 30	0130	0.053	

STORET RETRIEVAL DATE 76/04/27

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450704
34 04 00.0 081 22 35.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0106 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
73/03/28	09 10	0000	13.6		30	65	7.70	13	0.070	0.700	0.320	0.017
	09 10	0004	13.7	8.8		60	7.50	12	0.050	0.300	0.320	0.014
	09 10	0015	13.7	8.8		70	7.70	10K	0.050	0.300	0.190	0.015
	09 10	0040	13.2	9.0		60	7.70	10K	0.050	0.200	0.190	0.014
	09 10	0075	11.4	8.8		63	7.50	12	0.030	0.200	0.300	0.010
	09 10	0102	11.3	8.8		65	7.60	14	0.040	0.200	0.310	0.012
73/07/09	14 15	0000	30.9		84	63	8.20	20	0.070	0.400	0.050	0.003
	14 15	0006	29.7	8.2		60	7.30	19	0.050	0.300	0.040	0.004
	14 15	0015	27.6	4.5		60	6.40	19	0.170	0.400	0.190	0.010
	14 15	0030	23.4	0.4		60	6.20	18	0.150	0.400	0.230	0.008
	14 15	0055	19.5	1.6		69	6.30	19	0.060	0.800	0.410	0.006
	14 15	0080	16.1	0.7		71	6.40	23	0.130	0.800	0.380	0.008
	14 15	0106	15.0	0.6		71	6.40	22	0.120	0.900	0.370	0.007
73/09/22	14 20	0000	27.4	7.6	90	49	6.60	20	0.050	0.700	0.030	0.010
	14 20	0020	27.0	5.4		48	6.60	21	0.040	0.300	0.030	0.011
	14 20	0035	26.5	2.2		51	6.40	22	0.110	0.400	0.040	0.008
	14 20	0055	25.0	0.1		56	6.30	24	0.230	0.600	0.060	0.009
	14 20	0070	21.8	0.0		67	6.50	25	0.550	1.000	0.030	0.035
	14 20	0087	20.2	0.0		69	6.50	30	0.660	1.200	0.030	0.050

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

450704
34 04 00.0 081 22 35.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0106 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L
73/03/28	09 10	0000	0.059	4.9
	09 10	0004	0.052	
	09 10	0015	0.056	
	09 10	0040	0.052	
	09 10	0075	0.031	
	09 10	0102	0.049	
73/07/09	14 15	0000	0.015	9.7
	14 15	0006	0.016	
	14 15	0015	0.040	
	14 15	0030	0.039	
	14 15	0055	0.049	
	14 15	0080	0.023	
	14 15	0106	0.026	
73/09/22	14 20	0000	0.020	5.9
	14 20	0020	0.025	
	14 20	0035	0.027	
	14 20	0055	0.052	
	14 20	0070	0.048	
	14 20	0087	0.073	

STORET RETRIEVAL DATE 76/04/27

42<

450705
34 05 40.0 081 27 40.0 3
LAKE MURRAY
45071 SOUTH CAROLINA
030891

11EPALES 2111202
0055 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
73/03/28	10 00	0000	14.6		29	60	7.80	10K	0.070	0.500	0.350	0.020
	10 00	0004	14.6	8.8		58	7.60	11	0.060	0.300	0.340	0.019
	10 00	0015	14.6	8.8		60	7.60	12	0.050	0.200	0.350	0.019
	10 00	0035	13.9	8.2		61	7.60	13	0.060	0.300	0.340	0.017
	10 00	0050	12.5	7.6		60	7.60	13	0.060	0.300	0.340	0.017
73/07/09	14 45	0000	31.1		60	62	8.30	17	0.090	0.500	0.060	0.011
	14 45	0006	30.3	8.6		55	7.40	14	0.070	0.600	0.060	0.008
	14 45	0015	27.1	2.1		60	6.40	18	0.100	0.600	0.080	0.009
	14 45	0020	24.4	0.3		65	6.30	19	0.400	1.000	0.110	0.026
	14 45	0040	22.5	0.5		70	6.40	20	0.380	0.700	0.110	0.020
	14 45	0056	18.2	1.1		75	6.60	24	0.280	0.500	0.1[illegible]0	0.009
73/09/22	15 00	0000	27.8	6.4	72	49	6.70	23	0.050	0.500	0.030	0.010
	15 00	0015	27.1	6.8		53	6.80	22	0.040	0.400	0.030	0.013
	15 00	0025	26.4	1.6		56	6.40	23	0.130	0.400	0.060	0.013
	15 00	0040	25.7	1.5		57	6.60	22	0.160	0.200	0.100	0.012
	15 00	0056	25.0			72	6.40	30	0.540	0.900	0.040	0.013

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L
73/03/28	10 00	0000	0.067	6.2
	10 00	0004	0.065	
	10 00	0015	0.061	
	10 00	0035	0.064	
	10 00	0050	0.061	
73/07/09	14 45	0000	0.028	7.5
	14 45	0006	0.030	
	14 45	0015	0.029	
	14 45	0020	0.092	
	14 45	0040	0.064	
	14 45	0056	0.036	
73/09/22	15 00	0000	0.027	10.1
	15 00	0015	0.023	
	15 00	0025	0.028	
	15 00	0040	0.039	
	15 00	0056	0.060	

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

43<

450706
34 05 00.0 081 32 15.0 3
LAKE MURRAY
45081 SOUTH CAROLINA
030891

11EPALES 2111202
0027 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
73/03/26	15 45	0000	14.7		20	60	7.20	12	0.080	0.800	0.340	0.023
	15 45	0006	14.4	9.0		60	7.20	13	0.050	0.400	0.370	0.019
	15 45	0015	14.3	9.0		60	7.20	14	0.040	0.400	0.390	0.019
	15 45	0023	14.2	8.8		60	7.20	13	0.040	0.400	0.380	0.019
73/07/09	15 10	0000	30.6		48	60	8.40	21	0.090	0.700	0.070	0.005
	15 10	0006	29.4	7.7		60	7.10	21	0.070	0.600	0.060	0.009
	15 10	0015	27.1	3.5		62	6.50	22	0.120	0.400	0.180	0.011
	15 10	0030	24.0	0.6		75	6.40	22	0.340	0.800	0.100	0.019
73/09/22	15 35	0000	28.0	9.0	40	57	8.30	21	0.040	0.700	0.030	0.010
	15 35	0010	25.9	5.2		57	7.00	23	0.070	0.200	0.120	0.009
	15 35	0020	25.3	2.0		60	6.50	24	0.180	0.300	0.130	0.012
	15 35	0030	25.7	2.0		62	6.40	22	0.200	0.300	0.130	0.012

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L
73/03/26	15 45	0000	0.093	8.4
	15 45	0006	0.080	
	15 45	0015	0.069	
	15 45	0023	0.057	
73/07/09	15 10	0000	0.035	4.4
	15 10	0006	0.042	
	15 10	0015	0.041	
	15 10	0030	0.084	
73/09/22	15 35	0000	0.049	9.3
	15 35	0010	0.044	
	15 35	0020	0.044	
	15 35	0030	0.050	

STORET RETRIEVAL DATE 76/04/27

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450707
34 06 00.0 081 15 25.0 3
LAKE MURRAY
45063 SOUTH CAROLINA
030891

11EPALES 2111202
0068 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00610 NH3-N TOTAL MG/L	00625 TOT KJEL N MG/L	00630 NO2&NO3 N-TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P
73/03/27	15 15	0000	15.3		72	70	7.80	10K	0.040	0.400	0.190	0.008
	15 15	0004	14.6	10.1		70	7.90	10K	0.040	0.200	0.180	0.007
	15 15	0015	13.5	9.8		70	7.90	10K	0.030	0.200	0.180	0.005
	15 15	0040	13.1	9.8		70	7.90	10K	0.040	0.200K	0.190	0.006
	15 15	0064	11.7	9.3		72	7.90	10K	0.030	0.200K	0.220	0.006
73/07/09	13 35	0000	30.2		96	63	8.30	17	0.070	0.800	0.040	0.003
	13 35	0006	29.8	8.2		60	7.60	16	0.080	0.800	0.070	0.004
	13 35	0015	28.4	6.5		60	7.20	16	0.080	0.800	0.060	0.004
	13 35	0030	24.1	1.7		63	6.40	16	0.070	0.600	0.190	0.004
	13 35	0048	21.2	1.5		65	6.30	25	0.060	0.600	0.310	0.007
	13 35	0064	18.3	2.9		69	6.40	25	0.090	0.600	0.330	0.006
73/09/22	16 10	0000	27.8	8.6	120	51	6.80	18	0.050	0.400	0.030	0.006
	16 10	0025	26.7	4.6		52	6.40	20	0.060	0.200K	0.030	0.008
	16 10	0040	26.4	0.4		52	6.40	17	0.110	0.300	0.030	0.009
	16 10	0050	25.4	0.4		51	6.50	26	0.420	0.500	0.020	0.013
	16 10	0060	22.4	0.0		56	6.60	30	0.410	0.600	0.020	0.011
	16 10	0086	20.3	0.1		62	6.60	30	0.350	0.500	0.020	0.011

DATE FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-TOT MG/L P	32217 CHLRPHYL A UG/L
73/03/27	15 15	0000	0.028	5.0
	15 15	0004	0.030	
	15 15	0015	0.024	
	15 15	0040	0.023	
	15 15	0064	0.026	
73/07/09	13 35	0000	0.012	8.1
	13 35	0006	0.013	
	13 35	0015	0.013	
	13 35	0030	0.012	
	13 35	0048	0.011	
	13 35	0064	0.012	
73/09/22	16 10	0000	0.012	5.0
	16 10	0025	0.012	
	16 10	0040	0.017	
	16 10	0050	0.018	
	16 10	0060	0.016	
	16 10	0086	0.015	

K VALUE KNOWN TO BE
LESS THAN INDICATED

APPENDIX E

TRIBUTARY and WASTEWATER TREATMENT PLANT DATA

STORET RETRIEVAL DATE 76/04/27

4507A1
34 02 30.0 081 11 30.0 4
SALUDA RIVER
45 LEXINGTON CO HWY
O/LAKE MURRAY 030891
BANK AT END OF RD 1.5 MI BELO DAM
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/18	09	45	0.170	0.270	0.019	0.006	0.025
73/03/14	13	45	0.230	0.500	0.017	0.012	0.025
73/04/15	10	45	0.280	1.100	0.047	0.010	0.035
73/05/17	10	30	0.280	0.985	0.030	0.020	0.050
73/06/19	09	15	0.380	0.810	0.038	0.014	0.025
73/07/19	12	50	0.350	0.210	0.012	0.021	0.021
73/08/17	09	00	0.210	0.280	0.088	0.006	0.015
73/09/19	13	15	0.048	0.880	0.210	0.017	0.040
73/10/23	10	00	0.029	1.050	0.490	0.046	0.060
73/11/20	12	45	0.100	0.250	0.056	0.005K	0.020
73/12/17	08	30	0.160	0.300	0.016	0.008	0.045
74/01/08	13	45	0.192	0.200	0.016	0.012	0.030
74/01/22	09	00	0.260	0.100K	0.012	0.012	0.040
74/02/08	09	30	0.216	0.200	0.012	0.005	0.005

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

4507A2
34 08 30.0 081 37 30.0 4
SALUDA RIVER
45 SALUDA CO HWY MA
I/LAKE MURRAY 030891
ST HWY 395 BRDG 3 MI NE OF PERRYS XROADS
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/25	14 30		0.400	0.380	0.098	0.037	0.085
73/03/11	14 15		0.399	0.660	0.075	0.040	0.085
73/04/14	09 30		0.350	0.330	0.060	0.041	0.085
73/05/20	14 00		0.280	0.360	0.048	0.028	0.055
73/06/16	14 38		0.198	0.790	0.063	0.060	0.135
73/07/15	14 00		0.010K	0.510	0.014	0.014	0.075
73/08/12	09 45		0.088	0.370	0.048	0.010	0.055
73/09/16	13 55		0.081	0.720	0.072	0.025	0.180
73/10/14	14 25		0.154	0.850	0.120	0.015	0.075
73/11/18	11 05		0.280	0.500	0.080	0.052	0.052
73/12/09	14 35		0.312	0.600	0.084	0.016	0.035
74/01/13	13 25		0.470	0.300	0.060	0.052	0.100
74/01/31	11 20		0.380	1.000	0.060	0.040	0.110
74/02/10	14 10		0.480	0.600	0.110	0.040	0.095

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

450781
33 59 30.0 081 26 30.0 4
HORSE CREEK
45 LEXINGTON CO HWY
T/LAKE MURRAY 030991
ST HWY 158 BROG 4.5 MI NNW OF GILBERT
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/18	10 45		0.660	0.280	0.024	0.009	0.025
73/03/14	14 40		0.390	0.480	0.019	0.015	0.045
73/04/15	12 00		0.430	0.250	0.009	0.011	0.030
73/05/17	11 00		0.336	1.200	0.028	0.018	0.030
73/06/19	09 45		0.450	0.460	0.028	0.026	0.050
73/07/19	13 25		0.290	0.240	0.024	0.032	0.040
73/08/17	09 30		0.240	0.220	0.019	0.018	0.035
73/09/19	13 50		0.150	0.330	0.026	0.020	0.040
73/10/23	10 30		0.176	0.300	0.037	0.015	0.020
73/11/20	13 30		0.084	0.200	0.018	0.012	0.025
73/12/17	09 00		0.390	0.300	0.020	0.016	0.030
74/01/08	14 15		0.560	0.400	0.032	0.016	0.040
74/01/22	09 40		0.470	0.100	0.024	0.020	0.055
74/02/08	10 00		0.470	0.400	0.030	0.025	0.060

STORET RETRIEVAL DATE 76/04/27

4507C1
33 59 30.0 081 28 00.0 4
HOLLOW CREEK
45 LEXINGTON CO HWY
T/LAKE MURRAY 030991
ST HWY 54 BRDG 1 MI FROM MOUTH OF CREEK
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/18	11 00		0.250	0.460	0.038	0.012	0.035
73/03/14	14 25		0.160	0.580	0.024	0.029	0.065
73/04/15	11 50		0.126	0.330	0.019	0.014	0.040
73/05/17	11 10		0.220		0.046	0.015	
73/06/19	09 55		0.180	0.540	0.058	0.024	0.055
73/07/19	13 35		0.230	0.280	0.032	0.025	0.045
73/08/17	09 40		0.220	0.440	0.034	0.021	0.065
73/09/19	14 00		0.098	0.420	0.021	0.019	0.050
73/10/23			0.056	0.800	0.036	0.025	0.105
73/11/20	13 40		0.012	0.350	0.028	0.016	0.035
73/12/17	09 15		0.240	0.800	0.112	0.048	0.080
74/01/08	14 25		0.156	0.400	0.032	0.024	0.065
74/01/22	10 00		0.152	0.400	0.028	0.020	0.085
74/02/08	10 10		0.152	0.500	0.045	0.045	0.100

STORET RETRIEVAL DATE 76/04/27

4507D1
34 02 30.0 081 34 00.0 4
CLOUDS CREEK
45 SALUDA CO HWY MA
T/LAKE MURRAY 030891
ST HWY 25 BRDG 7.5 MI N OF BATESBURG
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/18	11	15	0.530	0.520	0.069	0.034	0.080
73/03/14	14	55	0.330	0.930	0.066	0.048	0.105
73/04/15	11	30	0.410		0.132	0.040	0.085
73/05/17	11	30	0.010K	1.200	0.014	0.010	0.075
73/06/19	10	10	0.084	0.700	0.150	0.034	0.110
73/07/19	13	50	0.010K	0.690	0.016	0.012	0.070
73/08/17	10	05	0.210	0.750	0.040	0.036	0.135
73/09/19	14	15	0.011	0.720	0.008	0.012	0.085
73/10/23	11	20	0.336	0.750	0.030	0.074	0.145
73/11/20	14	00	0.430	0.600	0.032	0.092	0.175
73/12/17	09	30	0.590	0.700	0.200	0.184	0.220
74/01/08	14	40	0.540	0.600	0.084	0.072	0.140
74/01/22	10	10	0.390	0.650	0.076	0.068	0.168
74/02/08	10	30	0.280	0.700	0.045	0.060	0.115

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

4507E1
34 02 30.0 081 41 30.0 4
RICHLAND CREEK
45 SALUDA CO HWY MA
T/LAKE MURRAY 030891
ST HWY 39 BRDG 4 MI NE OF SALUDA
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/25	13 25		0.120	0.190	0.036	0.011	0.020
73/03/11	13 20		0.110	0.540	0.013	0.028	0.055
73/04/14	08 45		0.078	0.180	0.010	0.018	0.030
73/05/17	13 00		0.273	1.000	0.012	0.015	0.035
73/06/16	14 00		0.147	1.050	0.036	0.079	0.160
73/07/15	13 10		0.240	0.270	0.015	0.012	0.040
73/08/12	09 00		0.290	2.200	0.069	0.029	0.065
73/09/16	13 00		0.028	0.520	0.014	0.016	0.045
73/10/14	13 45		0.010K	0.650	0.056	0.008	0.035
73/11/20	10 30		0.012	0.600	0.024	0.020	0.070
73/12/09	13 40		0.024	1.900	0.252	0.012	0.020
74/01/13	12 45		0.068	0.400	0.016	0.032	0.055
74/01/31	10 20		0.224	0.700	0.052	0.060	0.095
74/02/10	13 30		0.208	1.100	0.040	0.040	0.070

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

52<

4507F1
34 02 30.0 081 42 00.0 4
LITTLE SALUDA RIVER
45 SALUDA CO HWY MA
T/LAKE MURRAY 030891
ST HWY 39 BRDG 4 MI NE OF SALUDA
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/25	13 40		0.240	1.260	0.189	0.115	0.190
73/03/11	13 30		0.240	2.460	0.080	0.058	0.110
73/04/14	08 55		0.198	0.440	0.090	0.094	0.150
73/05/20	13 10		0.740	0.800	0.072	0.250	0.370
73/06/16	14 05		0.147	1.260	0.052	0.084	0.210
73/07/15	13 15		0.640	2.000	0.210	0.176	0.330
73/08/12	09 10		0.480	0.950	0.066	0.168	0.315
73/09/16	13 15		0.378	1.340	0.385	0.360	0.510
73/10/14	13 55		0.294	2.800	1.800	0.880	1.250
73/11/18	10 35		0.360	3.600	1.400	1.760	2.300
73/12/09	13 45		0.264	4.600	2.760	1.900	2.100
74/01/13	12 55		0.384	0.700	0.104	0.204	0.270
74/01/31	10 30		0.192	1.050	0.068	0.064	0.148
74/02/10	13 35		0.208	1.000	0.055	0.060	0.115

STORET RETRIEVAL DATE 76/04/27

4507G1
34 04 00.0 081 40 30.0 4
BIG CREEK
45 SALUDA CO HWY MA
T/LAKE MURRAY 030891
ST HWY 450 BRDG .5 MI ABOV L S RVR CONFL
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/25	13 50		0.039	0.130	0.022	0.015	0.025
73/03/11	13 40		0.130	1.000	0.046	0.031	0.065
73/04/14	09 05		0.088	0.440	0.017	0.033	0.055
73/05/20	13 20		0.088	0.770	0.018	0.024	0.075
73/06/16	14 10		0.100	1.150	0.044	0.063	0.145
73/07/15	13 25		0.017	3.200	0.058	0.027	0.125
73/08/12	09 20		0.010K	1.320	0.023	0.022	0.110
73/09/16	13 20		0.270	2.700	0.880	0.231	0.375
73/10/14	14 00		0.016	1.000	0.056	0.012	0.165
73/11/18	10 45		0.016	0.500	0.028	0.016	0.065
73/12/09	13 55		0.024	0.800	0.056	0.020	0.060
74/01/13	13 05		0.092	0.500	0.044	0.044	0.085
74/01/31	10 40		0.140	0.800	0.036	0.056	0.110
74/02/10	13 40		0.176	0.700	0.125	0.040	0.080

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

54<

4507H1
34 05 00.0 081 38 30.0 4
INDIAN CREEK
45 SALUDA CO HWY MA
T/LAKE MURRAY 030891
ST HWY 90 BRDG .5 MI ABOV MOUTH OF CREEK
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/25	14	10	0.252	0.480	0.039	0.018	0.035
73/03/11	14	00	0.350	0.540	0.016	0.048	0.080
73/04/14	09	15	0.270	0.390	0.012	0.019	0.050
73/05/20	13	30	0.035	0.800	0.031	0.011	0.060
73/06/16	14	20	0.210	1.100	0.054	0.074	0.165
73/07/15	13	45	0.063	0.720	0.034	0.015	0.060
73/08/12	09	30	0.150	1.100	0.050	0.015	0.090
73/09/16	13	35	0.230	1.980	0.094	0.078	0.160
73/10/14	14	10	0.062	0.250	0.032	0.024	0.090
73/11/18	10	50	0.010K	0.900	0.032	0.012	0.030
73/12/09	14	05	0.012	0.500		0.012	0.020
74/01/13	13	15	0.264	0.300	0.016	0.032	0.055
74/01/31	10	50	0.330	0.700	0.040	0.066	0.125
74/02/10	13	50	0.380	0.500	0.022	0.045	0.085

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

4507J1
34 09 30.0 081 37 00.0 4
BUSH RIVER
45 NEWBERRY CO HWY
T/LAKE MURRAY 030891
ST HWY 41 BRDG .5 MI ABOVE MOUTH
11EPALES 2111204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/02/25	14 45		0.660	0.730	0.170	0.170	0.260
73/03/11	14 25		0.550	1.680	0.120	0.160	0.240
73/04/14	10 15		0.490	0.640	0.110	0.147	0.230
73/05/20	14 05		1.100	0.930	0.273	0.360	0.460
73/06/16	14 45		0.410	1.540	0.097	0.176	0.440
73/07/15	14 10		0.700	0.840	0.105	0.220	0.410
73/08/12	09 55		1.040	0.540	0.088	0.440	0.575
73/09/16	14 00		0.231	0.940	0.065	0.140	0.330
73/10/14	14 40		1.200	0.675	0.160	0.650	0.795
73/11/18	11 10		0.792	0.700	0.216	0.520	0.630
73/12/09	14 45		0.840	1.800	0.510	0.330	0.710
74/01/13	13 30		0.756	0.600	0.128	0.260	0.390
74/01/31	11 30		0.430	1.100	0.112	0.140	0.300
74/02/10	14 20		0.470	0.800	0.050	0.115	0.240

STORET RETRIEVAL DATE 76/04/27

4507DA PD4507DA P000800
33 55 32.0 081 28 50.0 4
LEESVILLE
45 LEXINGTON CO HWY
T/LAKE MURRAY 030991
CLOUDS CREEK
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/05/28	15 00		0.160	12.000	2.900	7.270	8.250		
73/06/28	14 15		0.085	6.800	0.155	5.700	6.700		
73/08/03	14 00		0.140	16.000	1.200	4.700	9.025		
73/08/29	11 00			22.000	1.340		11.500		
73/09/28	14 00		0.110	25.200	8.100	11.800	35.000		
73/10/30	14 00		0.050	22.000	5.200	11.000	13.500		
73/12/03	02 45		0.100	25.000	5.700	11.600	13.500		
74/01/07	14 00		0.080	34.000	5.280	9.800	10.500		
74/02/28	13 00		0.240	12.000	2.200	7.200	8.800		
74/03/28	12 00		0.320	17.000	1.600	7.900	10.500		
74/04/30	11 00		0.160	16.000	1.050	9.450	10.500		
74/05/31	14 30		0.200	18.000	0.110	8.900	11.000		1.000
74/07/01	11 00		0.080	19.000	1.000	9.500	9.500		

STORET RETRIEVAL DATE 76/04/27

4507FA TF4507FA P002500
34 00 05.0 081 45 25.0 4
SALUDA
45 SALUDA CO HWY MP
T/LAKE MURRAY 030892
LITTLE SALUDA RIVER
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/06/15	14 00		0.370	25.000	11.100	6.900	11.000	0.300	0.300
73/07/12	13 00		0.560	29.000	10.400	8.600	12.800	0.300	0.300
73/08/20	14 30		0.052	35.000	8.700	1.340		0.400	0.350
73/09/18	13 00		0.400	26.900	13.100	10.900	17.500	0.350	0.350
73/10/05	13 30		0.190	36.000	11.000	8.200	15.700	0.300	0.350
73/12/15	12 00		0.120	30.000	9.050	13.800	16.000	0.300	0.350
74/01/07	14 00		0.640	14.000	5.300	6.600	9.100	0.300	0.350
74/02/06	13 00		0.120	19.000	7.400	7.400	10.000	0.300	0.300
74/03/11	12 30		1.040	22.000	9.200	11.500	12.500	0.350	0.350
74/04/07	16 00		0.720	18.000	7.200	7.000	8.800	0.400	0.350
74/05/10	13 00		0.320	33.000	14.500	10.500	13.500	0.350	0.375
74/06/10	10 00		0.680	29.000	12.500	3.450	10.000	0.400	0.400
74/07/08	14 00		0.760	22.500	8.900	6.300	10.500	0.500	0.500

STORET RETRIEVAL DATE 76/04/27

4507JA AS4507JA
35 15 50.0 081 38 00.0 4
NEWBERRY (OCONA)
45 NEWBERRY CO HWY
T/LAKE MURRAY 030891
UNNAMED TRIB/BUSH RIVER
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/06/04	14 45		0.690	12.000	0.138	3.000	5.000	0.450	0.450
73/06/29	14 15		4.800	6.680	0.760	5.500	6.300	0.400	0.400
73/07/30	15 00		5.100	8.500	0.190	4.500	5.950	0.500	0.500
73/08/31	12 00			4.600	0.330	12.800	13.000	0.500	0.500
73/09/27	14 30		5.800	8.100	1.150	13.000	13.000	0.500	0.500
73/10/31	11 30		4.500	8.400	0.670	11.900	13.600	0.500	0.500
73/11/29	09 00		2.200	13.000	3.400	15.900	15.900	0.500	0.500
73/12/27	10 30		0.290	21.000	1[illegible].200	10.400	11.500	0.500	0.500
74/01/30	10 30		2.700	10.750	[illegible].800	10.000	10.000	0.500	0.500
74/02/27	10 30		2.800	4.900	1.550	10.500	10.500	0.500	0.500
74/03/27	10 15		0.960	3.400	0.327	12.500	14.500	0.500	0.500
74/04/24	09 30		2.600	9.000	1.150	17.300	19.000	0.500	0.500
74/05/29	10 00		4.500	14.000	1.050	16.000	17.300	0.750	0.750

STORET RETRIEVAL DATE 76/04/27

4507J8 TF4507J8 P010000*
35 15 50.0 081 38 00.0 4
NEWBERRY (SCOTT CREEK)
45 NEWBERRY CO HWY
T/LAKE MURRAY 030891
SCOTT CREEK/BUSH RIVER
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/06/04	08 30								
CP(T)-			0.250	23.100	10.000	5.800	10.000	1.200	1.030
73/06/04	16 30								
73/06/29	09 00								
CP(T)-			0.240	23.100	10.000	7.300	10.000	1.100	1.300
73/06/29	16 00								
73/07/30	09 00								
CP(T)-			0.520	27.300	15.800	7.000	12.500	0.825	0.892
73/07/30	16 00								
73/08/31	08 00								
CP(T)-			0.220	30.500	12.250	6.900	11.000	1.000	1.100
73/08/31	15 00								
73/09/27	08 00								
CP(T)-			0.154	24.900	16.000	8.600	8.700	1.200	1.260
73/09/27	15 00								
73/10/30	09 00								
CP(T)-			0.210	31.000	13.000	7.100	8.400	1.150	1.030
73/10/30	16 00								
73/11/30	08 00								
CP(T)-			0.200	33.000	14.000	7.100	9.700	1.000	1.040
73/11/30	15 00								
73/12/28	09 00								
CP(T)-			0.200	27.000	10.200	8.500	12.000	1.020	1.090
73/12/28	16 00								
74/01/31	09 00								
CP(T)-			0.240	15.000	5.800	4.600	9.100	1.600	1.460
74/01/31	16 00								
74/02/28	09 00								
CP(T)-			0.400	19.500	8.600	6.700	9.000	1.250	1.410
74/02/28	16 00								
74/03/28	09 00								
CP(T)-			0.400	23.500	9.600	6.480	9.950	1.100	1.130
74/03/28	16 00								
74/04/23	14 30								
CP(T)-			0.160	22.000	8.600	8.000	11.500	1.100	1.150
74/04/24	14 30								

STORET RETRIEVAL DATE 76/04/27

4507JB TF4507JB P010000*
35 15 50.0 081 38 00.0 4
NEWBERRY (SCOTT CREEK)
45 NEWBERRY CO HWY
T/LAKE MURRAY 030891
SCOTT CREEK/BUSH RIVER
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
74/05/31	08 00								
CP(T)-			0.168	34.000	12.500	8.600	13.000	1.000	1.050
74/05/31	16 00								

STORET RETRIEVAL DATE 76/04/27

4507JC PD4507JC P000160*
35 15 50.0 081 38 00.0 4
NEWBERRY (GREEN SPRING)
45 NEWBERRY CO HWY
T/LAKE MURRAY 030891
GREEN SPRING CREEK/BUSH RIVER
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/06/04	14 15		0.010K	2.500	0.073	0.115	0.210	0.003	0.003
73/06/28	14 30		0.060	3.700	0.200	0.190	0.200	0.003	0.003
73/07/30	15 30		0.060	4.600	0.170	0.073	0.266	0.003	0.003
73/08/31	11 30			5.900	0.620	0.078	0.235	0.003	0.003
73/09/27	14 00		0.220	6.440	0.692	0.340	0.645	0.003	0.003
73/10/31	11 00		0.070	2.500	0.130	0.130		0.003	0.003
73/11/29	08 30		0.070	3.500	0.110	0.083	0.190	0.003	0.003
73/12/27	09 45		0.130	4.300	0.420	0.200	0.280	0.003	0.003
74/01/30	09 30		0.160	3.000	0.480	0.100	0.150	0.003	0.003
74/02/27	09 30		0.240	2.900	0.600		0.270	0.003	0.003
74/03/27	09 45		0.160	1.600	0.150	0.100	0.290	0.003	0.003
74/04/24	09 00		0.040	3.500	0.100	0.210	0.300	0.003	0.003
74/05/29	09 30		0.120	6.000	0.050K	0.190	0.225	0.004	0.004

K VALUE KNOWN TO BE
LESS THAN INDICATED

STORET RETRIEVAL DATE 76/04/27

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4507JD PD4507JD P001000*
35 15 50.0 081 38 00.0 4
NEWBERRY (POOL #1)
45 NEWBERRY CO HWY
T/LAKE MURRAY 030891
UNNAMED CREEK/BUSH RIVER
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/06/04	14 30		0.013	0.920	0.052	1.200	1.650	0.150	
73/06/29	14 45		0.040	5.740	0.150	1.100	1.950	0.150	
73/07/30	15 15		0.040	8.800	0.145	1.700	3.400	0.150	
73/08/31	11 45			8.500	0.057	2.660	3.700	0.150	0.150
73/09/27	14 15		0.090	10.500	0.300	2.600	4.000	0.150	0.150
73/10/31	10 00		0.040	9.100	0.110	2.300	3.600	0.150	0.150
73/11/29	09 45		0.050	15.000	0.100	2.400	5.250	0.150	0.150
73/12/27	11 00		0.080	10.500	0.340	2.100	4.000	0.150	0.150
74/01/30	11 30		0.040	13.000	0.100	1.480	6.100	0.150	0.150
74/02/27	11 00		0.080	8.600	0.100	0.970	3.600	0.150	0.150
74/03/27	10 45		0.120	7.400	0.450	1.400	3.600	0.150	0.150
74/04/24	10 00							0.150	0.150
74/05/29	10 30		0.040	15.000	0.063	1.700	4.200	0.150	0.150

STORET RETRIEVAL DATE 76/04/27

4507XA PD4507XA P000500
35 13 00.0 081 33 30.0 4
PROSPERITY #1
45 NEWBERRY CO HWY
T/LAKE MURRAY 030891
TIMOTHY CREEK - SW LAGOON
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/05/30	10 30		4.200	23.100	8.300	10.000	15.700	0.040	
73/07/03	10 15		23.000	7.000	0.350	9.900	11.500	0.020	0.025
73/07/31	10 00		16.400	6.200	0.100	10.600	14.500	0.030	0.025
73/08/28	09 45			8.200	0.110	14.000	17.000	0.030	0.025
73/10/02	09 30		24.000	13.000	0.270	13.700	16.000	0.030	0.025
73/10/30	09 30		23.000	14.000	0.220	15.800	15.800	0.030	0.025
73/11/27	10 15		24.000	17.000	0.240	14.700	18.800	0.030	0.025
73/12/31	09 45		7.500	45.000	16.000	15.000	18.000	0.030	0.025
74/01/31	10 15		20.000	22.000	0.420	13.000	16.500	0.030	0.025
74/02/28	10 10		22.000	10.000	0.910	9.100	13.500	0.030	0.080
74/03/29	11 30		17.600	9.400	0.430	12.500	17.000	0.025	0.020
74/05/08	11 40		13.000	24.000	8.200	15.700	18.000	0.030	0.025
74/05/30	09 30		11.000	34.000	14.000	14.700	16.250	0.025	0.025

STORET RETRIEVAL DATE 76/04/27

64<

4507XB AP4507XB P000300
34 13 00.0 081 33 31.0 4
PROSPERITY #2 (NORTHWEST LAGOON)
45 NEWBERRY CO HWY
T/LAKE MURRAY 030891
TIMOTHY CREEK - NE LAGOON
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/05/30	11 00		0.130	29.400	8.100	9.200	23.000	0.020	
73/07/03	10 45		0.390	23.100	0.980	8.600	23.000	0.035	0.040
73/07/31	10 30		0.150	18.900	3.800	1.850	25.000	0.045	0.040
73/08/28	09 15		0.690	38.250	5.110	22.250	31.500	0.045	0.040
73/10/02	10 00		0.130	18.900	0.250	26.500	27.150	0.045	0.040
73/10/30	10 25		0.200	27.000	5.600	24.000	38.500	0.045	0.040
73/11/27	10 40		0.230	39.000	8.400	26.000	29.000	0.045	0.040
73/12/31	09 25		1.200	32.500	8.800	25.000	28.800	0.045	0.040
74/01/31	09 45		0.200	26.000	6.900	19.000	20.000	0.045	0.040
74/02/28	09 30		0.280	20.000	5.800	18.000	20.000	0.045	0.040
74/03/29	11 15		0.200	24.000	6.000	17.000	22.000	0.045	0.040
74/05/08	11 25		0.600	38.000	5.880	19.500	25.000	0.045	0.040
74/05/30	09 05		0.320	20.000	0.320	20.000	23.000	0.045	0.040

STORET RETRIEVAL DATE 76/04/27

4507ZA TF4507ZA P002500
33 53 10.0 081 33 10.0 4
BATESBURG (DUNCAN CREEK)
45 LEXINGTON CO MAP
T/LAKE MURRAY 030892
DUNCAN CREEK
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/06/01	11 00		0.320	12.000	4.900	4.200	5.200		0.330
73/07/03	10 00		2.300	6.300	3.100	1.250	2.000		
73/08/03	14 00		1.400	12.000	4.800	3.900	5.800	0.300	
73/09/05	14 00		4.440					0.405	
73/10/02	15 00		6.700	13.000	5.500	2.200	10.000	0.405	0.400
73/11/05	14 30		3.000	13.500	6.800	9.000	10.500	0.400	
73/12/04	13 00		2.900	15.000	5.600	8.300	10.500	0.350	0.405
74/01/09	14 00		1.320	9.600	4.200	5.280	6.900	0.405	
74/02/11	13 30							0.400	0.405
74/03/06	10 30		1.560	6.100	2.500	1.650	2.300	0.395	0.400
74/04/01	13 30		2.240	9.000	6.100	3.900	6.600	0.375	0.405
74/05/07	14 00		2.320	13.000	5.600	4.400	6.100	0.375	

STORET RETRIEVAL DATE 76/04/27

4507YA TF4507YA P002500
33 55 22.0 081 33 25.0 4
BATESBURG (WEST CREEK)
45 SALUDA CO HWY MP
T/LAKE MURRAY 030892
WEST CREEK
11EPALES 2141204
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/06/01	11 30		1.000	24.000	5.690	6.600	16.000		0.400
73/07/03	10 30		0.520	9.600	3.900	1.860	3.200		
73/08/03	14 30		0.230	40.000	9.300	4.300	8.450	0.300	
73/09/05	13 30		0.048					0.230	
73/10/02	14 00		0.130	24.000	9.100	2.400	3.400	0.230	0.300
73/11/05	14 00		0.370	37.500	4.000	5.500	12.000	0.230	
73/12/04	13 30		0.420	35.000	3.400	4.700	10.500	0.200	0.230
74/01/09	13 30		0.640	54.000	10.100	4.300	6.950	0.230	
74/02/11	13 00							0.200	0.230
74/03/06	11 00		2.000	38.000	6.500	4.300	7.050	0.200	0.230
74/04/01	13 45		1.240	42.000	17.300	10.000	14.500	0.225	0.230
74/05/07	14 30		1.000	42.000	6.100	5.900	9.600	0.200	